

Highly shock-resistant ceramic material

Abstract

Ceramic material of high impact strength, in particular based on Si_3N_4 or ZrO_2 , having an HV10 hardness of not more than 15.5 GPa and an E modulus at room temperature of less than 330 GPa, wherein the material contains 0.2 to 5 wt.% of carbon particles which have a maximum particle size of 5 μm , a process for the preparation of the ceramic material and the use thereof, in particular as roller bodies in bearings.

Figure 2